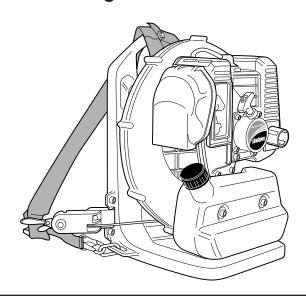


SHINDAIWA OWNER'S/OPERATOR'S MANUAL

### **EB501/EVC BLOWER** High Performance



#### **WARNING!**

Minimize the risk of injury to yourself and others! Read this manual and familiarize yourself with the contents. Always wear eye and hearing protection when operating this unit. Minimize the risk of injury: Read this manual and familiarize yourself with its contents.



#### INTRODUCTION

#### **IMPORTANT!**

Before using this product, consult local regulations concerning noise restrictions and hours of operation!

The Shindaiwa EB501 has been designed and built to deliver superior performance and reliability without compromise to quality, comfort, safety, or durability.

Shindaiwa high performance engines represent the leading edge of 2-cycle engine technology, and deliver exceptionally high power at remarkably low displacement and weight. As a professional owner/operator, you'll soon discover why Shindaiwa is simply in a class by itself!

#### **IMPORTANT!**

The information contained in this manual describes machines available at the time of production. While every attempt has been made to give you the very latest information about your Shindaiwa EB501 blower, there may be some differences between your machine and what is described here. Shindaiwa Inc. reserves the right to make changes in production without prior notice, and without obligation to make alterations to machines previously manufactured.

#### **CAUTION!**

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

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#### **CAUTION!**

This EB501 blower is equipped with a spark-arresting muffler! Never operate this machine without both the muffler and spark arrester installed and properly functioning!

#### ATTENTION STATEMENTS

This manual contains special "attention statements" surrounded by boxes and preceded by the triangular Attention Symbol.



#### WARNING!

A statement preceded by the word "WARNING" contains information that should be acted upon to prevent serious bodily injury.

#### **CAUTION!**

A statement preceded by the word "CAUTION" contains information that should be acted upon to prevent damaging your machine.

Additional attention statements that are not preceded by the Attention Symbol are:

#### **IMPORTANT!**

A statement preceded by the word "IMPORTANT" is one that possesses special significance.

#### **NOTE:**

A statement preceded by the word "NOTE" contains information that is handy to know and may make your job easier.



Read and follow this manual. Failure to do so could result in serious injury.



Wear eye and hearing protection at all times during the operation of this machine.



Do not operate this machine if you are tired, ill or under the influence of alcohol, drugs, or medicine.

#### **IMPORTANT!**

The operational procedures described in this manual are intended to help you get the most from your machine and also to protect you and others from harm. These procedures are general guidelines only, and are not intended to replace any safety rules/laws that may be in force in your area. If you have any questions regarding your EB501 blower, or if you do not understand something in this manual, your Shindaiwa dealer will be glad to assist you.

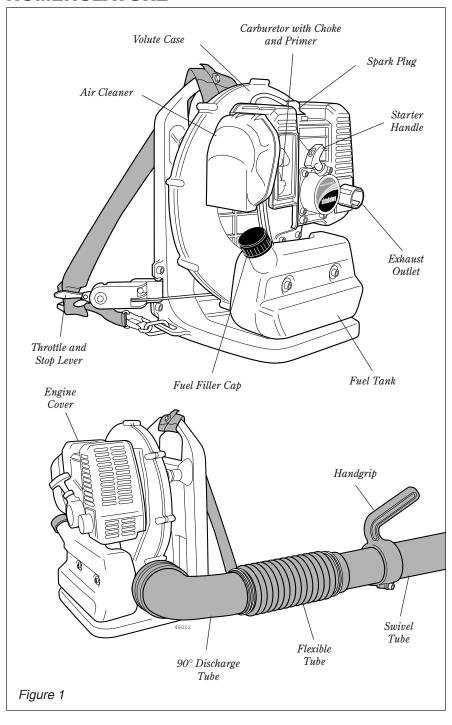
For additional information, you may also contact Shindaiwa Inc. at the address printed on the back of this manual.



#### **WARNING!**

Do not make unauthorized modifications to this machine!

#### **NOMENCLATURE**



#### **SPECIFICATIONS**

Model EB501
Dimensions (L x W x H)330 x 375x 475 mm
Engine Type 2 cycle, catalyst, air cooled gas engine, vertical-cylinder
Bore & Stroke
Displacement
Fuel/oil ratio Gasoline/oil mixture (50:1 with ISO EGD or JASO FC class 2- cycle EngineOil)
Carburetor Walbro diaphragm-type with primer pump
Ignition
Spark PlugChampion CJ8
Starting
Stopping Throttle lever (fuel shut-off)
Fuel Tank Capacity
Exhaust SystemSpark-arrester muffler
Air Filtration
Weight (dry; without blower tubes), EB501

Specifications are subject to change without notice.

#### **Prior to Assembly**

Before assembling, make sure you have all the components required for a complete unit:

- 90° Discharge Tube
- Flexible Tube
- Swivel Tube
- Straight Tube
- Nozzle Tube

- Handgrip (removable)
- Three Tube Clamps (115 mm, 100 mm, 85 mm) See figure 2.

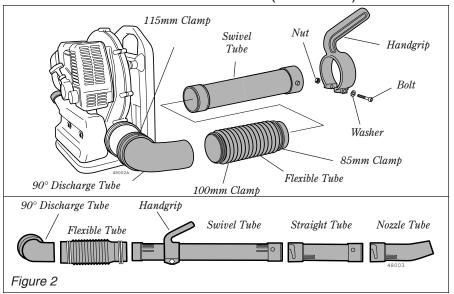
#### **Standard Tools**

- Spark Plug Wrench
- Three Hex Wrenches (3 mm. 4mm. 5mm)

#### **ASSEMBLING THE BLOWER**

- 1. Place the blower upright on the ground or a sturdy work surface.
- 2. Fit the 90° discharge tube over the blower outlet port, and secure with the 115mm dia. clamp.
- 3. Slip the flexible tube over the opposite end of the 90° discharge tube, and secure with the 100mm clamp.
- 4. Push the swivel tube into the flexible tube, and then install and tighten the 85mm clamp over the rotating band on the swivel tube.
- 5. Slide the handgrip over the swivel tube, and secure with the bolt, washer, and nut.

### ASSEMBLING THE BLOWER (continued)



- 6. Grasp the straight tube as shown, and push the tube over the swivel tube locking pins (right). See figure 3.
- 7. Lock the straight tube to the swivel tube by rotating the straight tube.
- 8. Grasp the nozzle tube and lock the nozzle to the straight tube as in Steps 6 and 7.

#### **IMPORTANT!**

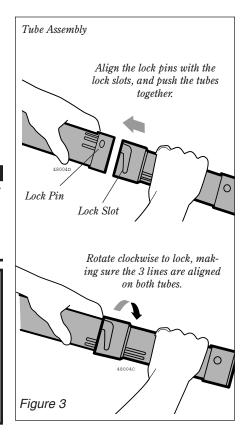
Blower tube installation affects blower balance and performance! Make sure the tubes and nozzle are correctly assembled per above, and that all connections are tight.



#### **WARNING!**

#### Danger from rotating impeller!

Stop the engine before installing or removing the blower tubes! Never perform any maintenance or assembly procedures on this machine while the engine is running!



#### MIXING FUEL

#### **Fuel Requirements**

- Use only fresh, clean fuel.
- Use only fuel with an octane rating of 87 or above.
- Mix all fuel with ISO EGD or JASO FC class 2-cycle Engine Oil at a gasoline/oil ratio of 50:1 (1 gallon gasoline to 2.6 oz. mixing oil).

#### **CAUTION!**

Use of mixing oil other than ISO EGD or JASO FC rated oil can lead to exessive carbon deposits.



#### **WARNING!**

#### Danger of fire!

Never transfer or store fuels in the presence of combustible materials! Before starting the engine, always move the blower to a clear area at least 10 feet (3 meters) away from fuels and other combustible materials!

#### **IMPORTANT!**

Mix only enough fuel for your immediate needs! If fuel must be stored longer than 30-days, it should first be treated with a stabilizer such as StaBil™ or equivalent product!

#### **CAUTION!**

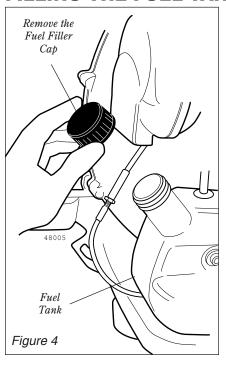
Never attempt to mix fuel in the blower fuel tank! Always mix all fuels in a clean, approved container!

Some gasolines contain ethanol alcohol as an oxygenate!
Oxygenated fuels may cause increased engine operating temperatures! Under certain conditions, alcohol-based fuels may also reduce the lubricating qualities of some mixing oils!

Never use any fuel containing more than 10% ethanol alcohol by volume!

Generic oils and some outboard mixing oils are not intended for use in high-performance air cooled 2-cycle engines, and should never be used in your Shindaiwa blower!

#### FILLING THE FUEL TANK



- 1. Place the blower upright on the ground or on a sturdy work surface and wipe any debris from around the fuel cap.
- 2. Remove the fuel cap. See figure 4.
- 3. Fill the tank with clean, fresh fuel (see page 6).
- 4. Replace the cap and wipe away any spilled fuel before starting the blower engine.



## WARNING! Danger of fire and burn injury!

- Always use extreme care when handling fuel! Fuel is highly flammable!
- **Never** operate this blower if fuel system components are damaged or are leaking!
- **Never** attempt to refuel the engine while it is running!
- Never attempt to refuel a hot engine! Always allow the blower engine to cool before fueling!

- Never smoke or light any fires near the blower or fuels!
- **Always** transport and store fuels in an approved container!
- Never place flammable material close to the engine muffler!
- Never operate the blower without a properly functioning muffler and spark arrester installed!
- **Never** operate this blower unless it is properly assembled and in good working condition!

#### STARTING AND STOPPING THE BLOWER



#### **WARNING!**

#### Danger from rotating impeller!

The impeller will rotate whenever the blower is operating! Never operate this blower unless the intake cover and blower tubes are properly installed and in good working order! Danger from thrown dust or debris! Always wear eye and respiratory protection when operating this machine! Never direct the blower stream toward people or animals!

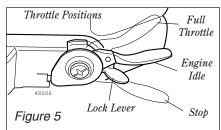
Never operate this blower unless all controls are properly installed and in good working order.

#### **CAUTION!**

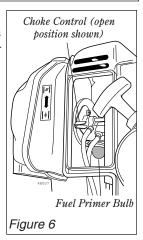
Avoid continuous running of the engine without the blower tubes installed, or if the intake cover or blower tubes are blocked. Doing so can cause engine overheating resulting in severe engine damage!

## Starting Procedure WARM OR COLD ENGINE

1. While squeezing the throttle lock lever, move the throttle lever to the "engine idle" position. See figure 5.



2. Prime the fuel system by depressing the fuel primer bulb repeatedly until the bulb fills with fuel and resistance is felt. See figure 6.



# **COLD ENGINE ONLY** Choke the engine by moving the choke control UP (choke is closed).

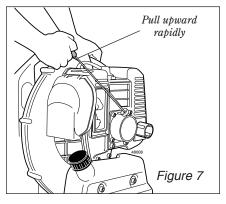
3. Place the blower on the ground, and hold the blower firmly with your left hand on the volute case. See figure 7.



#### **WARNING!**

The engine cover will be hot after blower operation!

4. Using your right hand, pull the starter handle slowly until you feel the starter engage.



- 5. As the starter engages, pull the starter handle upward rapidly.
- 6. If necessary, repeat Steps 4 and 5 2–3 times until the engine starts.

#### **CAUTION!**

The recoil starter can be damaged by abuse!

- Never pull the starter cord to its full length.
- Always engage the starter before cranking the engine.
   Always rewind the starter cord slowly.

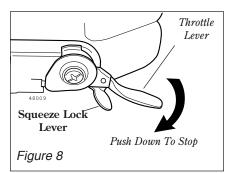
#### WHEN THE ENGINE STARTS

- 1. As the engine warms, open the choke gradually by slowly moving the choke control down to the fully OPEN position.
- 2. Run the engine at idle speed until operating temperature is reached (2-3 minutes).

The blower should now be ready for use.

#### STOPPING THE ENGINE

- 1. Cool the engine by allowing it to run at idle for 2–3 minutes.
- 2. While squeezing the throttle lock lever, push and hold the throttle lever down until the engine stops. See figure 8.



#### **IMPORTANT!**

If the engine continues to run with the throttle lever in the "off" position, stop the engine by moving the choke control UP to the fully closed position. Adjust idle setting as decribed on page 10.

#### IF THE ENGINE DOES NOT START

Repeat the appropriate starting procedures for "warm" or "cold" engine. If the engine still will not start, follow the "Starting a Flooded Engine" procedure as below:



#### **WARNING!**

Never operate the blower unless all controls are properly installed and in good working order. Never operate the blower if the intake cover or blower tubes are missing or damaged!

#### STARTING A FLOODED ENGINE

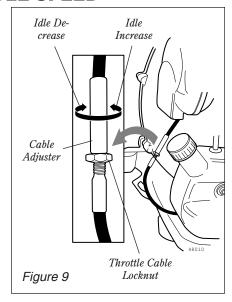
- 1. Disconnect the spark plug lead, and use the spark plug wrench to remove the spark plug in a counter-clockwise direction (see the diagram on page 14).
- 2. If the spark plug is fouled or is soaked with fuel, clean or replace the plug as required.
- Clear excess fuel from the combustion chamber by cranking the engine several times while the spark plug is removed.
- 4. Install and tighten the spark plug, and reconnect the spark plug lead.
- 5. Repeat the starting procedures for "warm engine."
- 6. If the engine still fails to start or fire, refer to the troubleshooting flow chart at the end of this manual.

#### ADJUSTING ENGINE IDLE SPEED

- 1. Start the engine by following the procedures described on the preceding pages. Make sure the thottle lever is in the "idle" position.
- 2. Run the engine at idle speed until operating temperature is reached (2-3 minutes).
- 3. Loosen the throttle cable locknut. See figure 9.
- 4. Turn the cable adjuster in or out until the engine idles smoothly at approximately 2500-3000 rpm.
- Turn the throttle cable adjuster clockwise to decrease engine idle speed.
- Turn the throttle cable adjuster counter-clockwise to increase engine idle speed.
- 5. Tighten the throttle cable locknut securely.

#### **IMPORTANT!**

A clean and unrestricted airflow is essential to your blower's engine performance and durability! Before attempting any carburetor adjustments, inspect and clean the engine air filter as described on page 13 of this manual.



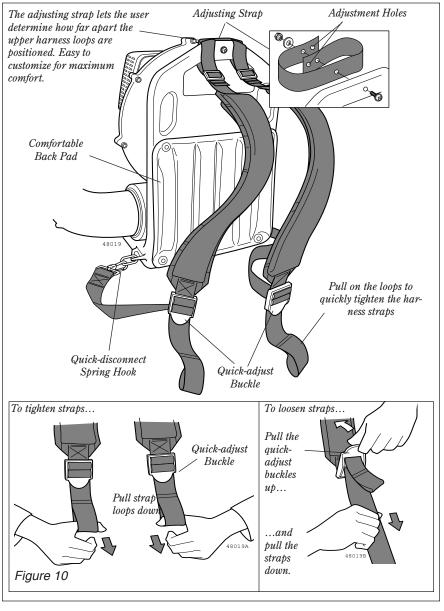
#### **IMPORTANT!**

Blower tubes and intake cover must be in place while adjusting engine idle! Engine idle speed will also be affected if either the intake cover or blower tubes are blocked or incorrectly installed!

#### ADJUSTING THE HARNESS

The Shindaiwa EB501 Blower features an advanced harness system that helps ensure maximum operator comfort and ease of operation.

- The shoulder harness is filled with soft padding for reduced operator fatigue.
- The simplified adjustment system makes it easy to match the harness to every body size and type. See figure 10.



#### **USING THE BLOWER**



#### **THINK SAFETY!**

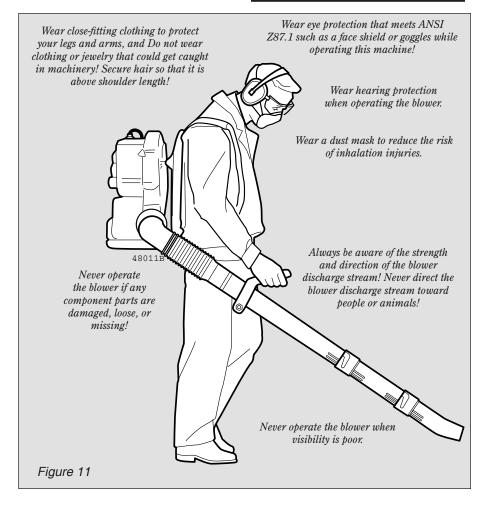
#### OPERATING TIPS

In the hands of an experienced operator, the EB501 can efficiently move a wide variety of debris ranging from grass clippings to gravel. As a general rule, operate your EB501 at the **lowest throttle setting** required to get the job done:

- Use low throttle settings when clearing lightweight materials from around lawns or shrubbery.
- Use medium to higher throttle settings to move grass or leaves from parking lots or walkways.
- Use full throttle when moving heavy loads such as dirt or snow.

#### **IMPORTANT!**

Blower noise increases at higher throttle settings! Always use the lowest throttle setting required to get the job done!



#### **ROUTINE MAINTENANCE EVERY 10 HOURS**

#### **IMPORTANT!**

Maintenance, replacement or repair of emission control devices and systems may be performed by any repair establishment or individual. However, warranty repairs must be performed by a dealer or service center authorized by Shindaiwa Corporation The use of parts that are not equivalent in performance and durability to authorized parts may impair the effectiveness of the emission control system and may have a bearing on the outcome of a warranty claim.



#### **WARNING!**

Before performing any maintenance on this blower, stop the engine and disconnect the spark plug wire!

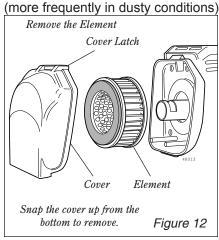
#### **Daily Maintenance**

- Remove dirt and debris from the blower exterior.
- Inspect the engine, tank, and hoses for possible fuel leaks, and repair as necessary.
- Inspect the entire blower for loose, damaged, or missing components, and repair as necessary.
- Inspect the engine cooling fins for accumulations of dirt or debris. and clean as necessary.

#### **CAUTION!**

Dirty or damaged cooling system components may allow the engine to overheat, possibly causing serious engine damage!

Operating the blower with loose, missing, or damaged components could allow the engine to overspeed, possibly causing serious engine damage!



- 1. Remove the air cleaner cover by gently lifting the cover latch. See figure 12.
- 2. Inspect the filter. If the element is damaged or distorted, replace it with a new one.

#### IMPORTANT!

The EB501 uses a special high capacity dry-type air filter element. The filter should not be cleaned with a liquid cleaner and must NEVER be oiled!

3. Tap filter gently on a hard surface to disloge debris from element or use compressed air to blow debris from the air filter element.

#### **IMPORTANT!**

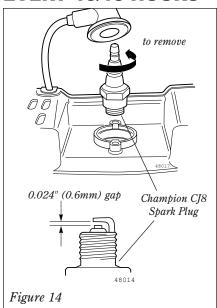
Direct the air stream at the inside face of the filter only!

- 4. Wash the filter cover with soap and water and blow dry.
- 5. Install the filter element and cover in the reverse order of removal.

#### **CAUTION!**

Never operate the blower if the air cleaner assembly is damaged or missing!

#### **EVERY 10/15 HOURS**



- 1. Use the spark plug wrench to remove the spark plug (turn counter-clockwise to remove). See figure 13.
- 2. Clean and adjust the spark plug gap to 0.024" (0.6mm). Replace any damaged or visibly worn plug with a Champion CJ8 or equivalent. See figure 13.
- 3. Install the spark plug finger-tight in the cylinder head, then tighten it firmly with the spark plug wrench. Avoid overtightening.

#### **CAUTION!**

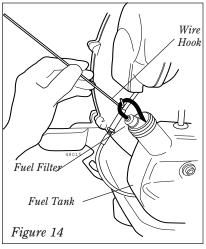
**Never** allow dirt or debris to enter the cylinder bore! Before removing the spark plug, thoroughly clean the spark plug and cylinder head area!

Allow the engine to cool before servicing the spark plug! Cylinder threads can be damaged by tightening or loosening the spark plug while the engine is hot!

#### **EVERY 50 HOURS**

(more frequently if reduced performance is noted)

- INSPECTION Inspect the entire blower and tubes for damage, including loose or missing components, and repair as necessary.
- **SPARK PLUG** Replace the spark plug with a Champion CJ8 or equivalent, gapped to 0.024 inch (0.6mm).



**FUEL FILTER** Use a bent piece of wire to extract the fuel filter from inside the fuel tank, and then remove and replace with a new element. See figure 14.

#### **CAUTION!**

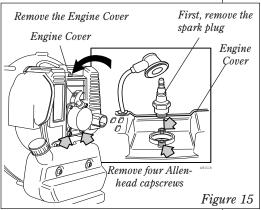
Do not nick or perforate fuel tube with wire hook!

Before reinstalling the filter, inspect the condition of the fuel line. If damage or deterioration are noted, the blower should be removed from service until it can be inspected by a Shindaiwa-trained service technician.

■ COOLING SYSTEM Use a wood or plastic scraper and a soft brush to remove dirt and debris from the cylinder fins and crankcase.

#### 135-HOUR MAINTENANCE

## Every 135 hours of operation, remove and clean the muffler.





#### **WARNING!**

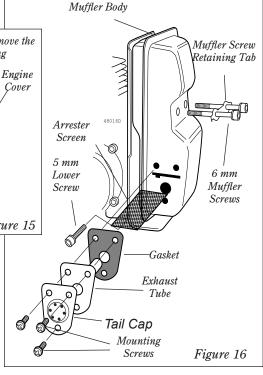
Never operate the machine with a damaged or missing muffler or spark arrester! Operating with missing or damaged exhaust components is a fire hazard and could also damage your hearing.

#### Remove the Muffler.

- 1. Remove the spark plug.
- 2 Use the 4mm Allen wrench to remove the four engine cover screws, and then slide the cover from the engine taking care not to misplace the cylinder-to-cover insulating gasket. See figure 15.
- 3. Pry the muffler screw retaining tabs away from the screw heads and remove the two 6 mm muffler screws. Remove the 5 mm lower muffler screw, then remove the muffler assembly from the engine. See figure 16.

### Remove the Spark Arrester.

4. Use the screwdriver to remove the three exhaust tube mounting screws, and then remove the tail cap, exhaust tube, gasket, and arrester screen. See figure 16.



- 5. Use a plastic scraper or wire brush to remove carbon deposits from the arrester screen, exhaust tube and tail cap.
- 6. Inspect the screen carefully, and replace any screen that has been perforated, distorted, or is otherwise unserviceable.
- 7. Gently tap the muffler on a wood surface to dislodge any loose carbon.
- 8. Inspect the cylinder exhaust port for carbon buildup.

#### **IMPORTANT!**

If you note excessive carbon buildup, consult your servicing dealer.

9. Reassemble the muffler in the reverse order of disassembly.

#### **IMPORTANT!**

Reset the muffler screw retaining tabs to prevent the muffler screws from loosening.

### **STORAGE** (30 days or longer)

- **CLEANING** Thoroughly clean the blower exterior.
- INSPECTION Inspect the entire blower and tubes for damage, including loose or missing components, and repair as necessary.
- FUEL Drain the fuel tank, and then clear any remaining fuel from the carburetor and lines by running the blower until it stops from lack of fuel.

#### **CAUTION!**

Never store this product with any fuel remaining in the tank, fuel lines, or carburetor! Your Shindaiwa warranty does not include coverage for damage caused by "stale" or contaminated fuels!

- LUBRICATION Remove the spark plug, and then pour approximately 1/4-oz of 2-cycle oil into the cylinder through the spark plug hole. Before reinstalling the spark plug, pull the recoil starter gently 2–3 times to distribute the oil over the cylinder walls.
- AIR CLEANER Remove, clean, and reinstall the filter element as described under "daily maintenance."
- **STORAGE** Store the blower in a clean, dry, dust-free environment.

# TROUBLESHOOTING GUIDE ENGINE DOES NOT START

What To Check	Possible Cau	ise	Remedy
Does the engine crank?	Faulty recoil s Fluid in the cr Internal dama	ankcase.	Consult with an authorized servicing dealer.
YES			
Good compression?	Loose spark p. Excess wear of cylinder, pistor	lug. n on, rings.	Tighten and re-test. Consult with an authorized servicing dealer.
YES			G
Does the tank contain fresh fuel of the proper grade?	Fuel/mixture stale, contami		Refill with fresh fuel of the correct mixture (gasoline and ISO EGD or JASO FC class 2-cycle Engine Oil).
YES	·	,	
Is fuel filling the fuel primer bulb during priming operations?	Check for clog filter and/or v		Clean as required; re-start.
YES↓			
Is there spark at the spark plug wire terminal?	Faulty ignition	ground.	Consult with an authorized servicing dealer.
YES↓			
Check the spark plug	If the plug is w fuel may be in cylinder.		Crank the engine with the plug removed, replace the plug, and re-start.
	The plug may or improperly		Clean and re-gap the plug to 0.24 inch (0.6 mm); re-start.
	The plug may damaged inte of the wrong	rnally or	Replace the plug with a Champion CJ8.

## TROUBLESHOOTING GUIDE (continued) LOW POWER OUTPUT

What To Check	Possible Cause	Remedy		
Is the engine overheating?	Operator is overworking the machine.	Use lower throttle setting.		
	Improper fuel/oil ratio.	Refill with fresh fuel of the correct mixture (gasoline and ISO EGD or JASO FC class 2-cycle Engine Oil, 50:1 ratio.		
	Fallen leaves or dust on the intake cover.	Clean the intake cover.		
	Fan, fan cover, or cylinder fins are dirty or damaged.	Clean, repair or replace as necessary.		
	Carbon deposits in the muffler.	Decarbonize muffler. (See 135 hr. maint. page 15).		
	Carbon deposits in the combustion chamber and/or exhaust port.	Consult with an authorized servicing dealer.		
	Missing or damaged blower tubes.	Replace missing or damaged blower tubes.		
Engine is rough at all speeds. May also have black smoke and/or unburned fuel at the exhaust.	Clogged air cleaner element.	Clean or replace air cleaner element.		
	Loose or damaged spark plug.	Tighten or replace.		
	Air leakage or clogged fuel line.	Repair or replace filter and/or fuel line.		
	Water in the fuel.	Drain the fuel system, replace the fuel.		
	Piston seizure.	Consult with an authorized		
	Faulty carburetor and/or diaphragm.	servicing dealer.		

### **TROUBLESHOOTING GUIDE** (continued)

ΔD	DIT	ION	IΔL	PRC	BL	.EMS
	4-4	1 2 4 1	/-\-	1/	7 -7 -	7 7 1 1 1 5

What To Check	Possible Cause	Remedy
Engine is knocking.	Overheating condition.	Idle engine until cool; find reason for overheat.
	Improper fuel.	Check fuel octane rating. Check for presence of alcohol in fuel. Refuel as necessary.
	Carbon deposits in combustion chamber and/or exhaust port.	Consult with an authorized servicing dealer.
Poor acceleration.	Clogged air cleaner element.	Clean the element.
	Spark arrester is	Clean the Spark arrester.
	clogged.	(page 15).
	Clogged fuel filter.	Replace fuel filter.
	Carburetor mixture too lean.	Consult with an authorized servicing dealer.
	Idle speed set too low.	Set to 2500-3000 RPM.
	Leaking or damaged blower housing or tube assembly.	Repair or replace components as required.
Egine difficult to shut off.	Debris is tangled in blower impeller blades.	Consult with an authorized servicing dealer.
	Overheated engine.	Idle engine to cool.
	Throttle cable is incorrectly adjusted.	Choke engine to stop. Adjust thottle cable.
	Overheating due to incorrect spark plug.	Replace spark plug with Champion CJ8.

# TROUBLESHOOTING GUIDE (continued) ADDITIONAL PROBLEMS

What To Check	Possible Cause	Remedy
Engine stops abruptly.	Throttle lever is the "OFF" position.	Move throttle lever to the run position and reststart.
	Fuel tank empty.	Refuel.
	Clogged fuel filter.	Replace fuel filter.
	Water in the fuel.	Drain; replace with clean fuel. Replace fuel filter.
	Shorted spark plug or loose terminal.	Clean or replace spark plug; tighten the terminal.
	Ignition failure.	Consult with an authorized servicing dealer.
Excessive vibration.	Piston seizure.	Consult with an authorized servicing dealer.
	Warped or damaged blower fan.	Consult with an authorized servicing dealer.
	Loose bolt or fastener	Tighten as required.
	Internal engine damage.	Consult with an authorized servicing dealer.
Engine over- speeding.	Damaged A-V cushions.	Replace cushions.
	Blower intake or discharge ports or tubes are clogged with debris.	Remove debris.
	Impeller blades are missing or damaged.	Consult with an authorized servicing dealer.

#### **Emission System Warranty Statement**

#### **Your Warranty Rights and Obligations**

The California Air Resources Board, the U.S. Environmental Protection Agency and Shindaiwa Corporation are pleased to explain the exhaust and evaporative emission control system warranty on your new small off-road (nonroad) engine.

In California, new small off-road engines must be designed, built, and equipped to meet the State's stringent anti-smog standards. In other states, new 1997 and later non-road engines must meet the Federal EPA's stringent anti-smog standards.

Shindaiwa Corporation must warrant the emission control system on your small off-road engine for the periods of time listed below, provided there has been no abuse, neglect, or improper maintenance of your small off-road engine.

Your engine exhaust and evaporative emission control system includes parts such as the carburetor, fuel tank, the ignition system and, if equipped, the catalytic converter. These components are specifically listed below.

Where a warrantable condition exists, Shindaiwa Corporation will repair your small off-road engine at no cost to you including diagnosis, parts, and labor.

#### Manufacturer's Warranty Coverage

When sold within the U.S., this engine's emission control system is warranted for a period of two (2) years from the date this product is first delivered to the original retail purchaser.

During the warranty period, Shindaiwa Corporation will, at their option, repair or replace any defective emission-related component on this engine. During the original Warranty Period, these Warranty Rights are automatically transferable to subsequent owners of this product.

#### What is Covered by this Warranty

- 1. Carburetor Internal Components
  - Throttle Valve, Needle, Jet, Metering Diaphragm
- 2. Fuel Tank
- 3. Ignition System Components
  - Ignition Coil
  - Flywheel Rotor
- 4. Catalytic Converter (if originally equipped)

The emission control system for your particular Shindaiwa engine may also include certain related hoses and connectors.

#### **Owners Warranty Responsibilities**

As the small off-road engine owner, you are responsible for the performance of the required maintenance listed in this owners manual. Shindaiwa Corporation recommends that you retain all receipts covering maintenance on your small off-road engine, but Shindaiwa Corporation cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

As the small off-road engine owner, you should be aware, however, that Shindaiwa Corporation may deny you warranty coverage if your small off-road engine or a part has failed due to abuse, neglect, improper maintenance, or unapproved modifications.

You are responsible for presenting your small off-road engine to an authorized Shindaiwa Dealer as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

If you have any questions regarding your warranty rights and responsibilities, you should contact a Shindaiwa customer service representative at (503) 692-3070 or your local Shindaiwa Dealer.

#### **Consequential Damages**

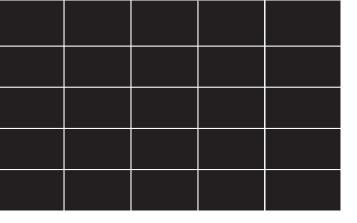
In the event that other component parts of this product are damaged by the failure of a warranted part, Shindaiwa Corporation will repair or replace such component parts at no charge to you.

#### What is Not Covered

- Failures caused by abuse, neglect, or improper maintenance procedures.
- Failures caused by the use of modified or non-approved parts or attachments.

### This Warranty is Administered by:

Shindaiwa Inc. 11975 S.W. Herman Rd. Tualatin, OR 97062 (503) 692-3070



# shindaiwa

Shindaiwa Inc. 11975 S.W. Herman Rd. Tualatin, Oregon 97062 USA Telephone: 503 692-3070 Fax: 503 692-6696

www.shindaiwa.com

Shindaiwa Corporation Head Office: 6-2-11, Ozuka-Nishi Asaminami-Ku, Hiroshima 731-3167, Japan Telephone: 81-82-849-2220

Fax: 81-82-849-2481

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